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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/17/2001

Ahti Muhonen

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7590

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EXAMINER

FOX, BRYAN J

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/836,792

Applicant(s)

MUHONEN, AHTI

Examiner

Bryan J. Fox

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/15/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 19, 2005 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over van den Heuvel, et al. (GB2294844A) in view of Bridges et al. (US006546246B1) and further in view of Sainton et al (US00RE38787E).

Regarding **claim 1**, Van den Heuvel, et al. discloses a communications operating system where a subscriber unit 20 for use in a communications system 19 may be used in multiple different available systems (see figure 1 and page 3, lines 31-34), which reads on the claimed "mobile station, configured for use as a software radio having the capability for universal adaptive use within globally dispersed cellular communication networks". Once the unit has accessed the channel of the common communication system, it receives an indication of available communication systems (see page 4, lines 14-18), which reads on the claimed "transceiver for receiving data over a common system parameter channel" and this information may provide details such as features available (see page 4, lines 18-20), which reads on the claimed "processor for compiling and storing network characteristic data relating to said globally dispersed cellular communication networks, received over said common system parameter channel, relating to the operational capabilities of said cellular networks". Furthermore, the system uses a matrix having features cross-referenced by subscriber unit capabilities, which reads on the claimed "combining said network characteristic data and said subscriber identification data into an addressable matrix of operational capabilities". The system disclosed by van den Heuvel, et al. fails to teach that the subscriber unit will store identification information.

In a similar field of endeavor, Bridges et al discloses a system with over the air programming where a mobile station 68 is provided with a memory device 67 for storing a Preferred System Identification List and/or Intelligent Roaming Database that indicates the band or bands where a mobile station may find a preferred system when roaming, including the system ID or system operator code corresponding to the wireless carrier the mobile station should use for wireless communication in order to obtain the services required by the subscriber (see column 9, lines 61-66), which reads on the claimed "processor for compiling and storing subscriber identification data relating to the operational capabilities of said mobile station".

It would have been obvious to one skilled in the art at the time of the invention to modify van den Heuvel, et al. with Bridges, et al. to include the above memory that stores information relating to the identification and operational of the station in order to allow the mobile station to obtain service on the cellular network with which the home cellular service provider has the best roaming agreement, and/or which supports the services the user requires as suggested by Bridges, et al. (see Bridges, et al. column 4, lines 39-51). The combination of van den Heuval et al and Bridges et al fails to disclose receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks into which the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system and that the compilation occurs at the mobile station.

In a similar field of endeavor, Sainton et al discloses a radio frequency communication unit that is capable of operating over a plurality of different radio

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channels and analog or digital (see column 10, lines 22-29). A system is selected based on user preferences or a preprogrammed routine by the unit (see column 16, lines 32-58), which reads on the claimed, "independent globally dispersed networks into which the mobile stations the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel and Bridges et al with Sainton et al to include the above use of the mobile station for receiving and selecting the system in order to provide plural omni-modal wireless products which would allow for adaptive service provider selection based on user experience with specific service providers as suggested by Sainton et al (see column 2, lines 61-65).

Regarding **claim 2**, the combination of van den Heuval et al and Bridges et al fails to expressly disclose the mobile station further comprises a main microprocessor controller and said first, second, and third processors are modules within said main microprocessor.

In a similar field of endeavor, Sainton et al discloses the use of a microprocessor 110 connected to memory 112 and operates to control the input circuitry, and memory can contain both data storage and programmable information and microprocessor selectively operates the voice processing circuitry, data processing circuitry and switches to select the appropriate transmission channel (see column 8, lines 34-47).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuval et al and Bridges et al with

Sainton et al to include the above use of the microprocessor in order to conserve space and allow for efficient control of the device.

Regarding **claim 5**, the combination of van den Heuval et al and Bridges et al fails to expressly disclose the use of read only memory for storing the operational capabilities of the mobile station.

In a similar field of endeavor, Sainton et al discloses the use of EEPROMs for program information and operating instructions used by the device (see column 5, lines 58 – column 6, line 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuval and Bridges et al with Sainton et al to include the above use of EEPROM in order to have a re-programmable memory that is quickly accessed.

Regarding **claim 6**, the combination of van den Heuval et al and Bridges et al fails to expressly disclose the use of programmable read only memory for storing the operational capabilities of the mobile station.

In a similar field of endeavor, Sainton et al discloses the use of EEPROMs for program information and operating instructions used by the device (see column 5, lines 58 – column 6, line 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuval and Bridges et al with Sainton et al to include the above use of EEPROM in order to have a re-programmable memory that is quickly accessed.

Regarding **claim 7**, the combination of van den Heuval et al and Bridges et al fails to expressly disclose the use of erasable, programmable read only memory for storing the operational capabilities of the mobile station.

In a similar field of endeavor, Sainton et al discloses the use of EEPROMs for program information and operating instructions used by the device (see column 5, lines 58 – column 6, line 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuval and Bridges et al with Sainton et al to include the above use of EEPROM in order to have a re-programmable memory that is quickly accessed.

Regarding **claim 8**, Van den Heuvel, et al. discloses a communications operating system where a subscriber unit 20 for use in a communications system 19 may be used in multiple different available systems (see figure 1 and page 3, lines 31-34), which reads on the claimed “mobile station, configured for use as a software radio having the capability for universal adaptive use within globally dispersed cellular communication networks”. Once the unit has accessed the channel of the common communication system, it receives an indication of available communication systems (see page 4, lines 14-18), which reads on the claimed “receiving data over a common system parameter channel” and this information may provide details such as features available (see page 4, lines 18-20), which reads on the claimed “compiling and storing network characteristic data, received over said common system parameter channel, relating to the operational capabilities of said network”. Furthermore, the system uses a matrix

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having features cross-referenced by subscriber unit capabilities, which reads on the claimed "combining said network characteristic data and said subscriber identification data into an addressable matrix of operational capabilities". The subscriber unit determines which system it desires to utilize based on the list of available systems, types of features available and system costs (see page 3, lines 31-36), which reads on the claimed "generating an operational configuration based on said matrix". The system disclosed by van den Heuvel, et al. fails to teach that the subscriber unit will store identification information.

In a similar field of endeavor, Bridges et al discloses a system with over the air programming where a mobile station 68 is provided with a memory device 67 for storing a Preferred System Identification List and/or Intelligent Roaming Database that indicates the band or bands where a mobile station may find a preferred system when roaming, including the system ID or system operator code corresponding to the wireless carrier the mobile station should use for wireless communication in order to obtain the services required by the subscriber (see column 9, lines 61-66), which reads on the claimed "processor for compiling and storing subscriber identification data relating to the operational capabilities of said mobile station".

It would have been obvious to one skilled in the art at the time of the invention to modify van den Heuvel, et al. with Bridges, et al. to include the above memory that stores information relating to the identification and operational of the station in order to allow the mobile station to obtain service on the cellular network with which the home cellular service provider has the best roaming agreement, and/or which supports the

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services the user requires as suggested by Bridges, et al. (see Bridges, et al. column 4, lines 39-51). The combination of van den Heuval et al and Bridges et al fails to disclose receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks into which the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system and that the compilation occurs at the mobile station.

In a similar field of endeavor, Sinton et al discloses a radio frequency communication unit that is capable of operating over a plurality of different radio channels and analog or digital (see column 10, lines 22-29). A system is selected based on user preferences or a preprogrammed routine by the unit (see column 16, lines 32-58), which reads on the claimed, "independent globally dispersed networks into which the mobile stations the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel and Bridges et al with Sinton et al to include the above use of the mobile station for receiving and selecting the system in order to provide plural omni-modal wireless products which would allow for adaptive service provider selection based on user experience with specific service providers as suggested by Sinton et al (see column 2, lines 61-65).

Regarding **claim 9**, the combination of van den Heuval et al and Bridges et al fails to expressly disclose the predetermined criteria comprise at least one of cost, speed and volume of data.

In a similar field of endeavor, Sinton et al disclose that cost could be criteria for system selection (see column 16, lines 32-58).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel et al and Bridges et al with Sinton et al to include the above use of cost as a criteria in order to provide the most cost effective plan for a user who is very price sensitive as suggested by Sinton et al (see column 16, line 65 – column 17, line 4).

Regarding **claim 10**, the combination of van den Heuvel et al and Bridges et al fails to expressly disclose the predetermined criteria comprise at least one of cost, speed and volume of data.

In a similar field of endeavor, Sinton et al disclose that cost could be criteria for system selection (see column 16, lines 32-58).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel et al and Bridges et al with Sinton et al to include the above use of cost as a criteria in order to provide the most cost effective plan for a user who is very price sensitive as suggested by Sinton et al (see column 16, line 65 – column 17, line 4).

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over van den Heuvel, et al. in view of Bridges, et al. and Sinton et al and further in view of Henry, Jr, et al. (US005603084A).

Regarding **claim 3**, the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al fails to teach that a portion of the characteristics are programmed at the time of manufacture.

In a similar field of endeavor, Henry, Jr, et al. teaches that the programming of the serial number and the initial identification number can be accomplished when the phone is manufactured (see column 4, lines 4-7), which reads on the claimed invention that a portion of said operational characteristics of said mobile station are programmed into the device at the time of manufacture.

It would have been obvious to one skilled in the art at the time of the invention to modify the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al with Henry, Jr, et al. to program the serial number during manufacturing in order to eliminate the need to use time to do that later.

Regarding **claim 4**, the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al fails to teach that a portion of the characteristics are programmed when the device is activated.

In a similar field of endeavor, Henry, Jr, et al. teaches that some information is programmed after purchase and before a user can place a call (see column 6, lines 20-41), which reads on the claimed invention that a portion of said operational capabilities of said mobile station are programmed into the device at the time of activation with a home cellular service.

It would have been obvious to one skilled in the art at the time of the invention to modify the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al with

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Henry, Jr, et al. to include programming at the time of activation in order to allow information that is dependent on the customer to be input into the phone, such as a credit limit.

Response to Arguments

Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J. Fox whose telephone number is (571) 272-7908. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bryan Fox
February 28, 2006


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER